

12/19/21/2006)

<b>FORM PTO-1449A</b>  <b>INFORMATION DISCLOSURE CITATION</b>		Attorney Docket: 2324-7028USI		Serial No.: 09/305,738	
		Applicant: MOSBACH, et al.			
		Filing Date: May 6, 1999		Group Art Unit: 1641	

Examiner Initial	Patent/Publication Number	Publication/Issue Date	Name	Filing Date
MZC ✓	1. 4,269,605	05/26/1981	Dean et al.	06/27/1979
✓	2. 5,310,648	05/10/1994	Arnold et al.	02/01/1991
✓	3. 5,372,719	12/13/1994	Afeyan et al.	03/30/1992
MZC ✓	4. 5,453,199	09/26/1995	Afeyan et al.	05/20/1994
	5.			
	6.			
	7.			
	8.			
	9.			

Examiner Initial	Patent Number	Publication Date	Country	Copy Filed	Translation
MZC ✓	10. DE 2 358 647	11-24-1973	Germany	<input checked="" type="checkbox"/> Yes	Abstract
✓	11. EP 0 364 772	09-27-1989	Europe	<input checked="" type="checkbox"/> Yes	Abstract
✓	12. EP 0 552 630	01-11-1993	Europe	<input checked="" type="checkbox"/> Yes	Abstract
✓	13. JP 60 181155	09-14-1985	Japan	<input checked="" type="checkbox"/> Yes	Abstract
✓	14. SE8404967	04-05-1986	Sweden	<input checked="" type="checkbox"/> Yes	Abstract
✓	15. WO 90/07527	07/12/1990	WIPO	<input checked="" type="checkbox"/> Yes	N/A
✓	16. WO 92/19663	11-12-1992	WIPO	<input checked="" type="checkbox"/> Yes	N/A
✓	17. WO 94/11403	05-26-1994	WIPO	<input checked="" type="checkbox"/> Yes	N/A
✓	18. WO 94/14835	07-07-1994	WIPO	<input checked="" type="checkbox"/> Yes	N/A
MZC ✓	19. UK 1,133,328	02-23-1966	United Kingdom	<input checked="" type="checkbox"/> Yes	N/A

Examiner: <u>Mary E. Coperley</u>	Date Considered: <u>09/28/06</u>
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP §609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.	

<b>FORM PTO-1449B</b>  <b>INFORMATION DISCLOSURE</b> <b>CITATION</b>		Attorney Docket:	Serial No.:
		2324-7028	09/305,738
		Applicant:	
		MOSBACH, et al.	
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NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	
MEC	✓ 1.	ANDERSSON et al., "Imprinting of Amino Acid Derivatives in Macroporous Polymers," Tetrahedron Letters, 1984, pp. 5211-5214, 25(45).	
	✓ 2.	ANDERSSON and MOSBACH, "Enantiomeric resolution on molecularly imprinted polymers prepared with only non covalent and non-ionic interactions," J. Chromatography, 1990, pp. 313-22, Vol. 516, Elsevier Science Publishers B.V.	
	✓ 3.	ANDERSSON et al., "Enantiomeric resolution of amino acid derivatives on molecularly imprinted polymers as monitored by potentiometric measurements," J. Chromatography, 1990, pp. 323-31, Vol. 516, Elsevier Science Publishers B.V.	
	✓ 4.	ANDERSSON et al., "Bioseparation and Catalysis in Molecularly Imprinted Polymers"; Molecular Interactions in Bioseparations, (That. T. Ngo, ed.), 1993, pp. 383-394, Plenum Press.	
	✓ 5.	ANDERSSON et al., "Molecular recognition in synthetic polymers: preparation of chiral stationary phases by molecular imprinting of amino acid amines," J. Chromatography, 1990, pp. 167-79, Vol. 513, Elsevier Science Publishers B.V.	
	✓ 6.	ARSHADY et al., "Synthesis of Substrate-Selective Polymers by Host-Guest Polymerization," Makromol. Chem., 1981, PP. 687-92, 182.	
	✓ 7.	BRAUN and Kuchen., "Tonenselektive Austauscherharze durch vernetzende Copolymerisation vinylsubstituierter Metallkomplexe," Chemiker-Zeitung, Jul./Aug. 1984, pp. 255-57, 108.	
	✓ 8.	BYSTROM et al., "Selective Reduction of Steroid 3- and 17-Ketones Using LiAlH <sub>4</sub> Activated Template Polymers," Journal Am. Chem. Soc., 1993, pp. 2081-83, Vol. 115.	
	✓ 9.	CHANG et al., "Protein Separation and Purification in Neat Dimethyl Sulfoxide," Biochemical and Biophysical Research Communications, 1991, pp. 1462-68, 176(3).	
	✓ 10.	DAMEN et al., "Stereoselective Synthesis Via a Photochemical Template Effect," Journal Am. Chem. Soc., Apr. 23, 1980, pp. 3265-67, 102(9), American Chemical Society, Washington, DC.	
	✓ 11.	EKBERG and MOSBACH, "Molecular imprinting: a technique for producing specific separation materials," TIBTECH, April 1989, pp. 92-95, Vol. 7, Elsevier Science Publishers Ltd (UK).	
	✓ 12.	FIGUERA et al., "High-Performance Immobilized-Metal Affinity Chromatography of Proteins on Iminodiacetic Acid Silica-Based Bonded Phases," Journal of Chromatography, 1986, pp. 335-77, 371, Elsevier Science Publishers B.V. Amsterdam.	
MEC	✓ 13.	FISCHER et al., "Direct Enantioseparation of $\beta$ -Adrenergic Blockers Using a Chiral Stationary Phase Prepared by Molecular Imprinting," J. Am. Chem. Soc., 1991, pp. 9358-60,	
Examiner Signature	Date Considered		
May E. Caporley			09/28/06

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		2324-7028USI	09/305,738
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		Mosbach et al.	
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NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	
MRC		Vol. 113, American Chemical Society, Washington, DC.	
MRC	✓ 14.	GLAD et al., "Use of Silane Monomers for Molecular Imprinting and Enzyme Entrapment in Polysiloxane-Coated Porous Silica," J. Chromatography, 1985, pp. 11-23, Vol. 347, Elsevier Science Publishers B.V.	
	✓ 15.	GUYOT, A., "Synthesis and Structure of Polymer Supports," Syntheses and Separations using Functional Polymers, 1988, pp. 1-43, John Wiley & Sons Ltd, Chichester, United Kingdom.	
	✓ 16.	HEDBORG et al., "Some studies of molecularly-imprinted polymer membranes in combination with field-effect devices," Sensors and Actuators A-physical, 1993, pp. 796-99, Volumes A37-A38; proceedings of Eurosensors VI, San Sebastian, Spain, Oct 5-7, 1992, Elsevier Sequoia, Lausanne, Switzerland.	
	✓ 17.	JOHANSSON and MOSBACH, "Acrylic Copolymers as Matrices for the Immobilization of Enzymes," Biochemica et Biophysica Acta, 1974, pp.339-47, Vol. 370, Elsevier Scientific Publishing Company, Amsterdam, The Netherlands.	
	✓ 18.	KEMPE and MOSBACH, "Chiral recognition of N <sup>α</sup> -protected amino acids and derivatives in non-covalently molecularly imprinted polymers," Int. J. Pept. Protein Res., Dec. 1994, pp. 603-6, 44(6), Munksgaard International Publishers, Belgium.	
	✓ 19.	KEMPE and MOSBACH, "Direct resolution of naproxen on a non-covalently molecularly imprinted chiral stationary phase," J. Chromatography, 1994, pp. 276-79, 664, Elsevier Science B.V.	
	✓ 20.	KEMPE and MOSBACH, "Binding Studies on Substrate and Enantio-Selective Molecularly Imprinted Polymers," Analytical Letters, 1991, pp. 1137-1145, 24(7), Marcel Dekker, Inc.	
	✓ 21.	MAYES et al., "Sugar Binding Polymers Showing High Anomeric and Epimeric Discrimination Obtained by Noncovalent Molecular Imprinting," Analytical Biochemistry, Nov. 1, 1994, pp. 483-88, 222(2), Academic Press, Inc.	
	✓ 22.	MORAWETZ and SONG, "The Interaction of Chain Molecules Carrying Reactive and Catalytic Chain Substituents," Journal Am. Chem. Soc., Dec. 20, 1966, pp. 5714-18, 88(24).	
	✓ 23.	MOSBACH, "Enzymes Bound to Artificial Matrixes," Scientific American, March 1971, pp. 26-33.	
MRC	✓ 24.	MOSBACH and KLAUS, "Molecular imprinting," Trends in Biochemical Sciences, Jan. 1994, pp. 9-14, Vol. 19, Elsevier Science Publishers.	
MRC	✓ 25.	MORRIS et al., "Synthesis of Some Amino Acid Derivatives of Styrene," JACS, 1959, pp.	
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MEC		377-82, Vol. 81.	
MEC	✓ 26.	MUNZER and Trommsdorff, "Polymerizations In Suspension" Polymerization Processes, 1977, pp. 106-43, John Wiley & Sons, New York, United States of America.	
	✓ 27.	NILSSON, "Enzymatic synthesis of oligosaccharides," Trends in Biotechnology, Sept. 1988, pp. 256-64, 6(9), Elsevier Publications, Cambridge, United Kingdom.	
	✓ 28.	NILSSON et al., "The use of bead polymerization of acrylic monomers for immobilization of enzymes," Biochimica et Biophysica Acta, 1972, pp. 253-256, Vol. 268.	
	✓ 29.	NORRLOW et al., "Improved Chromatography: Prearranged Distances Between Boronate Groups by the Molecular Imprinting Approach," J. Chromatography, 1987, pp. 374-77, Vol. 396, Elsevier Science Publishers B.V. Amsterdam.	
	✓ 30.	NORRLOW et al., "Acrylic Polymer Preparations Containing Recognition Sites Obtained by Imprinting with Substrates," J. Chromatography, 1984, pp. 29-41, 229(1), Elsevier Science Publishers B.V., Amsterdam, The Netherlands.	
	X 31.	O'SHANNESSEY et al., "Molecular Recognition in Synthetic Polymers," Journal Molecular Recognition, July 1989, pp. 1-5, 2(1), Heydon & Sons Limited.	
	✓ 32.	PAINE, "Dispersion Polymerization of Styrene in Polar Solvents. IV Solvency Control of Particle Size from Hydroxypropyl Cellulose Stabilized Polymerizations," Journal of Polymer Science, Aug. 1990, pp. 2485-2500, Vol. 28, John Wiley & Sons, Inc.	
	✓ 33.	PELZBAUER et al., "Reactive Polymers," Journal of Chromatography, 1979, pp. 101-7, Vol. 171, Elsevier Science Publishing Company, Amsterdam, The Netherlands.	
	X 34.	PORATH et al., "Metal Chelate Affinity Chromatography, A New Approach to Protein Fractionation," Nature, Dec. 18, 1975, pp. 598-599, Vol. 258.	
	✓ 35.	RAMSTROM et al., "Recognition Sites Incorporating Both Pyridinyl and Carboxy Functionalities Prepared by Molecular Imprinting," J. Org. Chem., 1993, pp. 7562-64, Vol. 58.	
	✓ 36.	RAMSTROM et al., "Synthetic Peptide Receptor Mimics: Highly Stereoselective Recognition in Non-Covalent Molecularly Imprinted Polymers," Tetrahedron: Assymetry, 1994, pp. 649-56, 5(4), Elsevier Science Ltd.	
	✓ 37.	REINHOLDSSON et al., "Preparation and properties of porous particles from trimethylolpropane trimethacrylate," Die Angewandte Makromolekulare Chemie, 1991, pp. 113-32, Vol. 192, Huthig & Wepf Verlag, Basel, Switzerland.	
MEC	✓ 38.	SCHMID et al., "Porosity determination of poly(trimethylolpropane trimethacrylate) gels,"	
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MEC		Makromol. Chem., May 1991, pp. 1223-35, Vol. 192, Huthig & Wepf Verlag, Basel, Switzerland.	
MEC	✓ 39.	SELLERGREN, "Imprinted dispersion polymers: a new class of easily accessible affinity stationary phases," J. Chromatography, 1994, 113-41, Vol. 673, Elsevier Science B.V.	
	✓ 40.	SELLERGREN, "Direct Drug Determination by Selective Sample Enrichment on an Imprinted Polymer," Anal. Chem., May 1, 1994, pp. 1578-82, 66(9).	
	✓ 41.	STAHL et al., "The Synthesis of a D-Amino Acid Ester in an Organic Media with a $\alpha$ -Chymotrypsin Modified by a Bio-Imprinting Procedure," Biotechnology Letters, 1990, pp. 161-66, 12(3).	
	✓ 42.	VLATAKIS et al., "Drug assay using antibody mimics made by molecular imprinting," Nature, Feb. 18, 1993, pp. 645-47, Vol. 361.	
	✓ 43.	TAMAO, et al. "Stereochemistry at Carbon in Cleavage of the Carbon-Silicon Bond in exo- and endo-2-Norbornylpentafluorosilicates by Various Brominating Agents," Journal Am. Chem. Soc., Apr. 23, 1980, pp. 3267-69, 102(9), American Chemical Society, Washington, DC.	
	✓ 44.	WILLIAMSON et al., "The Preparation of Micron-Size Polymer Particles in Nonpolar Media," Journal of Colloid and Interface Science, Oct. 1987, pp. 559-64, 119(2), Academic Press, Inc.	
	✓ 45.	WEITH et al., "Synthesis of Cellulose Derivatives Containing the Dihydroxyboryl Group and a Study of Their Capacity to Form Specific Complexes with Sugars and Nucleic Acid Components," Biochemistry, 1970, pp. 4396-4401, 9(22).	
	✓ 46.	WULFF et al., "Enzyme-Analog Built Polymers. 26. Enantioselective Synthesis of Amino Acids Using Polymers Possessing Chiral Cavities Obtained by Imprinting Procedure with Template Molecules," Chemical Abstracts, Jan. 29, 1990, 112(5), American Chemical Society, Columbus, Ohio, United States of America, pp. 640	
	✓ 47.	WULFF et al., "Enantioselective Synthesis of Amino Acids Using Polymers Possessing Chiral Cavities Obtained by an Imprinting Procedure with Template Molecules," Enzyme-Analogue Built Polymers, 26 Makromol. Chem., 1989, pp. 1727-35, 190(7).	
	✓ 48.	WULFF et al., "Enzyme-Analogue Built Polymers, 18 Chiral Cavities in Polymer Layers Coated in Wide-Pore Silica," Reactive Polymers, 1985, pp. 261-75, Vol. 3.	
MEC	✓ 49.	WULFF et al., "Influence of the nature of the crosslinking agent on the performance of imprinted polymers in racemic resolution," Makromol. Chem., 1987, pp. 731-40, Vol. 188.	

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MEC	X 50.	WULFF, "Polymeric Reagents and Catalysts," ACS Symposium Series, Developed from a symposium sponsored by the Divisions of Organic and Polymer Chemistry at the American Chemical Society, Miami Beach, Florida, April 28-May 3, 1985, pp. 186-230.	
MEC	✓ 51.	WULFF et al., "Racemic Resolution of Free Sugars with Macroporous Polymers Prepared by Molecular Imprinting. Selectivity Dependence on The Arrangement of Functional Groups Versus Spatial Requirements," J. Org. Chem., Jan. 4, 1991, pp. 395-400, 56(1), American Chemical Society.	
MEC	✓ 52.	WULFF et al., "The role of binding site interactions in the molecular imprinting of polymers," Trends in Biotechnology, Mar. 1993, pp. 85-7, Vol. 11, Elsevier Science Publishers Ltd (UK).	

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